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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/456,516	12/08/1999	KLAUS MULLER	732/000012	6567

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EXAMINER	
TSOY, ELENA	

ART UNIT	PAPER NUMBER
1762	

DATE MAILED: 12/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/456,516	MULLER ET AL.	
	Examiner	Art Unit	
	Elena Tsoy	1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 October 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-6,8-11 and 13* is/are pending in the application.

4a) Of the above claim(s) *11* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-6,8-10 and 13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 28, 2003 has been entered.

Response to Amendment

Amendment filed on October 27, 2003 has been entered. Claims 2 and 12 have been cancelled. Claims 1, 3-6, 8-11, 13 are pending in the application.

Declaration under 37 CFR 1.132

The Declaration under 37 CFR 1.132 filed on October 27, 2003 is insufficient to overcome the rejection of claims in view of the new ground(s) of rejection.

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1, 3-6, 8-10, drawn to a layered composite, classified in class 428, subclass 156.

II. Claim 11, drawn to a process for producing a layered composite, classified in class 264, subclass 241.

Distinctness

The inventions are distinct, each from the other because:

Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used

to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by materially different process comprising adhesively bonding a decorative layer and a heat-cured layer to a backing layer without the use of mold.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation with Mr. Herbert B. Keil on November 20, 2003 a provisional election was made with traverse to prosecute the invention of Group, claims 1, 3-6, 8-10. Affirmation of this election must be made by applicant in replying to this Office action. Claims 11 is withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 3, 4, 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson (US 5,139,854) in view of Klapper et al (US 5,312,848).

Johnson discloses a layered composite with a decorative surface and consisting essentially of a backing layer 4 of a reinforced (See column 1, lines 18-19; column 2, lines 62-65) thermoformable (thermoplastic) polymer, which is not polypropylene (See Fig. 2; column 9, lines 64-69) (e.g. injection molded urethane, See column 2, lines 63-64), a decorative layer 2 arranged thereupon (See Fig.2; column 6, lines 6-22; column 7, lines 59-60) and a heat-cured layer 1 applied to the decorative layer 2 (See column 7, lines 13-15) wherein the total thickness of the layered composite is from 140 to 1450 microns (0.14-1.45 mm) and whose backing layer 4 makes up at least 80 % of the thickness (See column 6, lines 51-64). A layer 3 is *optional* (See Fig. 2; column 6, lines 22-29). The layered composite is very durable and weatherable and is useful for exterior finish of automobiles (See column 2, lines 1-2). An optional intermediate layer 3 can be inserted as bonding material between backing layer 4 and the decorative layer 2. See Fig.2; column 6, lines 22-29. A thermoplastic polymer is polystyrene. See Fig. 2; column 9, lines 64-69. The decorative layer 2 is composed of a polymeric material, which has an embossment or coloration or combination of both. See Fig.2; column 6, lines 11-14. The heat-cured layer 1 arranged on the decorative layer 2 is composed of a thermosetting polymeric material, crosslinked by exposure to pressure or heat during the production of the layered composite. See column 7, lines 13-14, 28-41. The layered composite with a decorative surface further comprises a 500-25,000 micron thick additional backing layer 5 of a rigid thermoplastic polymer (See column 6,

lines 26-29, 44-45), so that the total thickness of the layered composite is from 640 to 26,450 microns (0.64-26.45 mm) and whose backing layer 4, 5 makes up at least 90 % of the thickness.

Although Johnson does not expressly show that the layered composite may be used for flooring coverings and wall panels, it is the Examiner's position that a layered composite of Johnson meets the claim since it is capable of performing the intended use, as evidenced by Ellison et al (See US 5,342,666, column 3, lines 34-35).

It is held that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). In re Albertson 141 USPQ 730 (CCPA 1964); In re Heck 114 USPQ 161 (CCPA 1957). Likewise different intended uses for two otherwise similar products - is not a basis for patentable distinction. In re Tuominen 213 USPQ 89 (CCPA 1982).

Although Johnson does not expressly show particulars of injection-molding process for making a backing layer and a layered composite, it is the Examiner's position that a layered composite of Johnson is identical to claimed composite, since patentability of a chemical product is independent of how it is made. Ex parte Jungfer 18 USPQ 2d 1796, 1800 (BPAI 1991); Brystol-Myers Co. v. U. S. International Trade Commission 15 USPQ 2d 1258 (Fed. Cir. 1989); Ex parte Allen 2 USPQ 2d 1425,1427 (BPAI 1987); In re Thorpe 227 USPQ 964 (Fed. Cir. 1985); In re Dike 157 USPQ 581 (CCPA 1968); In re Stephens 145 USPQ 656 (CCPA 1965); In re Hoeksema 141 USPQ 733,736 (CCPA 1964); In re Smith 74 USPQ 207 (CCPA 1947).

Burden shifts on Applicants to show differences in product comparisons. Ex parte Gray 10 USPQ 2d 1922, 1925 (BPAI 1989).

Johnson fails to teach that decorative layer 2 and a heat-cured layer 1 are present on each side of the backing layer 4.

Klapper et al teach that thermoformable laminates, which have a wide range of uses, such as in the interior of motor vehicles and of both residential and commercial buildings (See column 1, lines 13-28), may have protective surface layers and decorative surface layers on *one* or *both sides* of the core (See column 11, lines 15-20) to provide a good surface appearance for ornamental purposes (See column 14, lines 32-38).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have covered both sides of a backing layer of a layered composite in Johnson with the expectation of providing the desired good surface appearance for ornamental purposes since Klapper et al teach that thermoformable laminates, which have a wide range of uses, such as in the interior of motor vehicles and of both residential and commercial buildings may have protective surface layers and decorative surface layers either on one or both sides of the core depending on intended use of a final product.

3. Claims 1, 3-5, 8, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellison et al (US 5,342,666) in view of Johnson (US 5,139,854) and Klapper et al (US 5,312,848).

Ellison et al disclose a layered composite with a decorative surface for wall panels (See column 3, lines 34-35) and consisting essentially of a molded polymer substrate 20 (backing layer) having engineering properties such as rigidity, etc., which is not polypropylene (See column 5, lines 37-50); a cast film 13 comprising a heat cured top layer on a decorative layer (See column 4, lines 15-22), and a bonding layer 14 (See column 5, lines 56-60) for facilitating the bonding of the

cast film 13 to the backing layer (See column 6, lines 8-9); wherein the backing layer 20 makes up at least 80 % of the total thickness (See Fig. 5; column 6, lines 51-64). Considering the fact that the layer 13 0.5×10^{-3} - 300×10^{-3} inch thick (See column 6, lines 54-55), the bonding layer 14 is 0.25×10^{-3} – 250×10^{-3} inch thick (See column 6, lines 41-42), and the backing layer 20 I at least 4 times thicker than both layer 13 and 14, the total thickness of the layered composite would approximately be in the range of 0.07 – 56 mm. A thermoplastic polymer is polystyrene (See column 5, line 43). The decorative layer 2 is composed of a polymeric material, which has coloration (See column 5, lines 13-22). Glass fillers can be used for reinforcing a backing material (See column 5, lines 38-55). Ellison et al teach that the layered composite can be made in accordance with known laminating procedures e.g. comprising placing both layer 13 and 14 into the mold, injecting the backing layer 20 onto the bonding layer 14 and then molding resulting laminate (See column 5, lines 56-68; column 7, lines 58-64).

Ellison et al fail to teach: (i) exact claimed process parameters (Claim 1); (ii) the decorative cast film 13 can be bonded to the backing layer 20 without the use of the bonding layer 14 (Claim 1); (iii) the decorative cast film 13 is present on each side of the backing layer 20 (Claim 1).

As to (i), it is held that where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have determined the optimum values of the relevant process parameters through routine experimentation in the absence of showing criticality.

As to (ii), Johnson teach that a decorative layer 2 can be bonded to a backing layer 4 either with or without the use of a (bonding) layer 3 depending on material used (See column 6, lines 22-29).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have made a decorative layer of a cast film of Ellison et al from material of a bonding layer with the expectation of bonding the decorative layer to a backing layer without the use of additional bonding layer, as taught by Johnson.

As to (iii), Klapper et al are applied here for the same reason as above.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have covered both sides of a backing layer of a layered composite in Ellison et al with the expectation of providing the desired good surface appearance for ornamental purposes since Klapper et al teach that thermoformable laminates, which have a wide range of uses, such as in the interior of motor vehicles and of both residential and commercial buildings may have protective surface layers and decorative surface layers either on one or both sides of the core depending on intended use of a final product.

As to claim 5, Ellison et al further teach that the backing layer is polyethylene terephthalate backing layer (See column 5, lines 44-45). Ellison et al fail to teach that the backing layer is polybutylene terephthalate backing layer.

It should be noted that polyethylene terephthalate in Ellison et al is homologue of the claimed one. Homologues are a class of compounds differing only by methylene linkages and possessing similar properties. Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have substituted polyethylene terephthalate in Ellison

et al with homologues such as polybutylene terephthalate in view of their closely related structures and the resulting expectation of similar properties.

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson (US 5,139,854) in view of Klapper et al (US 5,312,848), and further in view of Miyakoshi (US 5,827,788).

Johnson, as applied above, further teaches that a backing layer of a decorative laminate can be made from polystyrene. See column 9, lines 64-68.

Johnson in view of Klapper et al fails to teach that the backing layer is polybutylene terephthalate backing layer.

Miyakoshi teaches that polystyrene is functionally equivalent to polybutylene terephthalate for making a backing layer of a decorative laminate. See column 4, lines 41-42, 49-51.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used polybutylene terephthalate for making a backing layer of a decorative laminate of Johnson in view of Klapper et al since Miyakoshi teaches of the equivalence of polybutylene terephthalate and polystyrene for their use as a backing layer in the decorative laminate art and selection of any of these materials to form a backing layer of a decorative laminate would be within the level of ordinary skill in the art. To substitute polystyrene in Johnson in view of Klapper et al for polybutylene terephthalate of Miyakoshi would have been an obvious functional equivalent.

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson (US 5,139,854) in view of Klapper et al (US 5,312,848), and further in view of Pelzer (US 6,019,923).

Johnson, as applied above, further teaches that a backing layer can be made from polyethylene. See column 9, lines 64-65.

Johnson fails to teach that the backing layer of a decorative laminate is made from polyoxymethylene.

Pelzer teaches that polyethylene is functionally equivalent to polyacetals (polyoxymethylene) for making a backing layer of a decorative laminate. See column 5, lines 11-12, 22-27.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used polyoxymethylene for making a backing layer of a decorative laminate of Johnson in view of Klapper et al since Pelzer teaches of the equivalence of polyoxymethylene and polyethylene for their use in the decorative laminate art and selection of any of these materials to form a backing layer of a decorative laminate would be within the level of ordinary skill in the art. To substitute polyethylene in Johnson in view of Klapper et al for polyoxymethylene of Pelzer would have been an obvious functional equivalent.

6. The prior art made of record and not relied upon is considered pertinent to applicant disclosure.

Sumi et al (US 6,451,417) show in the BACKGROUND OF THE INVENTION that JP 63051088 teaches that plastic moldings may be used for making parts of automobiles as well as for making inner walls, partitions and doors of buildings (See column 1, lines 21-26).

Response to Arguments

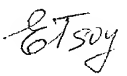
7. Applicant's arguments with respect to claims 1, 3-6, 8-11, 13 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elena Tsoy whose telephone number is (703) 605-1171. The examiner can normally be reached on Mo-Thur. 9:00-7:30, Mo-Thu.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on (703) 308-2333. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for all communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Elena Tsoy
Examiner
Art Unit 1762

November 20, 2003